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(54) Title: METHOD AND MATERIALS FOR HYDRAULIC FRACTURING OF WELLS

(57) Abstract: Hydraulic fracturing of wells by injecting a degradable polymer phase as a fracturing fluid is provided. Composition and degree of polymerization of the degradable polymer and the selection of additives may be varied to adjust the viscosity, degradation time and other properties of the fracturing fluid. Viscous degradable fluid or pellets of degradable polymer may be placed in a wellbore as an internal phase in a low viscosity carrier fluid. A polymer-continuous liquid phase may be formed at a selected location in the wellbore, usually near perforations, before the polymer phase is pressured into a formation to form a hydraulic fracture.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/30202

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E21B 43/26; C09K 3/00  
US CL : 166/308; 507/209, 219, 221, 922, 924

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 166/308; 507/209, 219, 221, 922, 924

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,699,860 A (GRUNDMANN) 23 December 1997 (23.12.1997), Example 1 and column 4, lines 22-27.	24, 25, 30-32
X	US 5,439,059 A (HARRIS et al) 08 August 1995 (08.08.1995), column 6, lines 39-45.	1, 2, 4, 5, 7, 9, 11, 16, 17, 21-23
X	US 4, 417, 989 A (HUNTER) 29 November 1983 (29.11.1983), column 6, lines 36-47.	24, 25, 30
A	US 4,715,967 A (BELLIS et al) 29 December 1987 (29.12.1987) see claims.	1-23

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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